

**AMENDMENTS TO THE SPECIFICATION**

On page 1, after the title, please insert the following new section headings:

**--BACKGROUND OF THE INVENTION--**

**--Field of the Invention--**

On page 1, before the second paragraph beginning with "A similar device of the prior art....", please insert the following new section heading:

**--Description of the Prior Art--**

On page 2, before the second full paragraph beginning with "The invention teaches that....", please insert the following new section heading:

**--SUMMARY OF THE INVENTION--**

On page 8, before the first paragraph beginning with "Figure 1...", please insert the following new section heading:

**--BRIEF DESCRIPTION OF THE DRAWINGS--**

On page 8, line 17, please rewrite the paragraph starting with "Figure 5" with the following rewritten paragraph:

--Figure ~~5~~4 is an overhead view of a portion of a semiconductor chip,--

On page 8, line 19, please rewrite the paragraph starting with "Figure 6" with the following rewritten paragraph:

--Figure ~~6~~5 is a cross section through a portion of the semiconductor chip and the waveguide located on it, and--

On page 8, line 22, please rewrite the paragraph starting with "Figure 7" with the following rewritten paragraph:

--Figure ~~7~~6 is an illustration similar to the one in Figure ~~6~~5, although an intermediate layer is located between the waveguide and the semiconductor chip.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS--**

On page 11, line 24, please rewrite the paragraph with the following rewritten paragraph:

--Figure 1 shows that the radiation receivers 12 are connected by means of printed conductors with an actuator and analysis device ~~17~~16 that is integrated into the semiconductor chip. The analysis device ~~17~~16 has an interface device that is schematically

indicated in the drawing for connection with a higher-level display and/or analysis unit, such as a microcomputer, for example.--

On page 12, line 11, please replace the paragraph with the following paragraph:

--Figure 1 shows that the semiconductor chip 3 forms a wall area of a flow-through measurement chamber, in the interior cavity 17 of which the receptors 5 are located. The flow-through measurement chamber has an inlet opening 19 and an outlet opening ~~19~~18. The inlet opening 19 is connected with a feed line for the sample, which is not shown in any detail in the drawing, and the outlet opening ~~19~~18 is connected with a discharge line.--